

**REMARKS**

Claims 2, 4-9, 11, 18, 20, 22-27 and 36 are pending in this application. By this Amendment, claims 2, 4, 5-9, 11, 20, 22-26 and 36 are amended and claims 3, 10, 12, 15, 21, 23 and 28-35 are cancelled. The amendments contain no new matter and are fully supported by Applicants' original specification, including the original drawings and claims. For example, the amendments to claims 18 and 37 are supported by at least paragraph [0067], Figs. 1 and 3 and original claim 18 of the publication of this application.

Applicants appreciate the courtesies shown to Applicants' representative by Examiner Bhat in the August 6, 2007 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

**I. Formal Matters**

Claims 2-12, 15 and 18 stand rejection under 35 U.S.C. §112, second paragraph as being indefinite. The Patent Office stated that it was unclear what was meant by "a determining portion."

Claims 2, 4, 5-9, 11, 36 are amended to change "a determining portion" to "an electronic control unit," which replaces the functional language with a structural element that is fully supported by Applicant's Specification, for example, by the electronic control unit 50 of FIG. 1. The rejection of cancelled claims 10, 12 and 15 is moot.

Consequently, Applicants respectfully request that the 35 U.S.C. §112, second paragraph rejection of claims 2-11, 15 and 18 be withdrawn.

**II. Pending Claims 2-12, 15, 18 and 20-36 Define Patentable Subject Matter**

Claims 2-12, 15, 18 and 20-36 stand rejected under 35 U.S.C. § 103(a) over Kawasumi, U.S. Patent 6,641,944 in combination with Tetsuo, JP 2000-268840. These rejections are respectfully traversed.

Kawasumi and Tetsuo do not teach or suggest using a rate at which the detected temperature of the reforming catalyst increases, as recited in independent apparatus claim 2 and independent method claim 20. Therefore, Kawasumi and Tetsuo do not teach or suggest that the reforming catalyst is degraded if a rate of increase in the detected temperature of the reforming catalyst after the mixture has started to be supplied to the reforming catalyst is slower than a predetermined rate, as further recited in claims 2 and 20.

Also, Kawasumi and Tetsuo do not teach or suggest that an extent of degradation of the reforming catalyst is determined based on a rate at which the detected temperature of the reforming catalyst rises or falls after an air fuel ratio of the mixture supplied to the reforming catalyst has been changed, as recited in independent apparatus claim 4 and independent method claim 22. Because Kawasumi and Tetsuo fail to teach or suggest at least the features noted above in claims 2, 4, 20 and 22, a *prima facie* case of obviousness has not been established.

The rejection of cancelled claims 3, 10, 12, 15, 21 and 28-35 is moot. Consequently, Applicants respectfully request that the 35 U.S.C. §103 rejection of claims 2, 4-11, 18, 20, 22-27 and 36 be withdrawn.

### **III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Petition for Extension of Time

Request for Continued Examination

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